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U.S. DEPARTMENT OF AGRICULTURE

FEDERAL-STATE COOPERATIVE

SNOW SURVEYS AND IRRIGATION WATER FORECASTS

for

Montana and Yellowstone River Tributaries in Wyoming

By
Division of Irrigation, Soil Conservation Service
United States Department of Agriculture
and
Montana Agricultural Experiment Station

In cooperation with the U. S. Forest Service, U. S. Geological Survey, National Park Service, U. S. Bureau of Reclamation, State Engineers of Montana and Wyoming and other Federal, State and local organizations.

As of
FEB. 1, 1950

FEDERAL-STATE COOPERATIVE
SNOW SURVEY AND IRRIGATION WATER FORECASTS

FOR

MONTANA and NORTHERN WYOMING

Upper Missouri and Upper Columbia River
Basins

Report Prepared
by

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Soil Conservation Service

and

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Montana State College

Division of Irrigation
Soil Conservation Service

and

Montana Agricultural Experimental Station
Bozeman, Montana

U S DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
H. H. Bennett, Chief

DIVISION OF RESEARCH
M. L. Nichols, Chief
Washington, D. C

MONTANA AND NORTHERN WYOMING SNOW SURVEY COURSES

LEGEND
- TOWNS AND CITIES
- 13D4 SNOW SURVEY COURSE
- (14) IDAHO & WYOMING NUMBERS
- STREAM GAGING STATIONS

JANUARY 1950

DIVISION OF IRRIGATION — BOZEMAN MONTANA

SCALE IN MILES 50 25 0 50 100

REPRODUCED BY THE SOIL CONSERVATION SERVICE, CARTOGRAPHIC DIVISION, LINCOLN, NEBR. SH. 11484

Drainage Basin and Course Name	Montana Number	Elev.	Location Sec. Lat.	Twp.	Range Long.	Record Began	Measuring Dates[a]	Measured By:[b]
Missouri River Drainage								
(MISSOURI HEAD)								
[illegible] Ridge	11E3	7100	27	1LS	2W	19LS	3,4,5	9
[illegible] Canyon	11E4	6930	26	1LS	2W	1945	3,4,5	9
[illegible] Kiln	11E2	6950	15	5S	9W	1948	3,4	1
[illegible] Pole Ridge	11E1	6650	16	1LS	9W	1948	3,4	1
(UPPER PRAIRIE)								
[illegible] Creek	13D10	7000	12	8S	10W	1948	3,4	1
[illegible] Stone	13D9	6100	11	8S	10W	1948	3,4	1
[illegible] Pass	13E1	7100	9	10S	15W	1948	3,4	1
[illegible] Creek	13D12	6650	11	9S	15W	1948	3,4	1
[illegible] Creek	13E2	7090	15	10S	15W	1948	3,4	1
[illegible] Junction	13D11	6800	27	8S	15W	1948	3,4	1
(BIG HOLE)								
[illegible] Pass	13D3	7110	26	3S	18W	1948	3,4	1
[illegible] Pass (Below)	13D4	6900	24	3S	18W	1948	3,4	1
East Fork Ranger	13D5	6700	22	3S	17W	1948	3,4	1
[illegible] Pass	13D2	7100	4	2S	19W	1934	2,3,4,5	1,2
[illegible] Creek	13D6	7310	25	7S	16W	1948	3,4	1
Miner Forks	13D8	7300	24	6S	17W	1948	3,4	1
Miner Lake	13D7	6720	10	6S	16W	1945	3,4,5	1
(MISSE RIVER)								
Anderson Mdw.	13D14	7000	18	3S	12W	1948	3,4	1
Elk Horn	13D15	8150	15	4S	12W	1934	3,4,5	2
Nisse River	13D13	6300	15	2S	12W	1948	3,4	1
(BOSTY RIVER)								
Cottonwood	11E2	5900	24	10S	3W	1948	3,4	1
Cottonwood (Upper)	11E1	6100	30	10S	2W	1948	3,4	1
Flashlight	12D3	6950	22	8S	7W	1945	3,4,5	1
Timber Root	12D2	6900	13	4S	3W	1948	3,4	1
Wigwam	11D1	6125	28	9S	3W	1948	3,4	1
MADISON RIVER								
Hebgen	11E5	6550	22	11S	3E	1934	1,2,3,4,5	2
West Yellowstone	11E7	6700	34	13S	5E	1934	1,2,3,4,5	2
Norris Basin	10E2	7500	44°-44'		110°-42'	1935	3,4	5,6
GALLATIN RIVER								
Devil's Slide	10D4	8100	14	5S	6E	1935	3,4,5	2,6
Hood Meadow	10D3	6600	22	4S	6E	1934	3,4,5	2,6
Mystic Lake	10D2	6600	30	3S	7E	1935	2,3,4	6,7
New World	10D1	6700	24	3S	8E	1939	2,3,4,5	6,7
21-Mile	11E6	7150	1	11S	5E	1934	1,2,3,4,5	2
MISSOURI RIVER MAIN STEM								
Chessman Reservoir	12C5	6200	2	8N	5W	1936	1,2,3,4,5	2
Crystal Lake	9C1	6100	24	12N	17E	1941	3,4	1
Grasshopper	10C2	7000	19	9N	8E	1938	3,4	1
Kings Hill	10C1	7950	35	13N	7E	1937	3,4,5	2
Picnic Grounds	12C6	6500	22	5N	6W	1940	2,3,4	3
Firestone Pass	12D1	7200	11	1N	7W	1938	2,3,4,5	1
Stemple Pass	12C1	6900	16	13N	7W	1934	3,4,5	2
Tenmile Creek, Lower	12C2	6250	13	8N	6W	1935	1,2,3,4,5	2
Tenmile Creek, Middle	12C3	6800	13	8N	6W	1934	1,2,3,4,5	2
Tenmile Creek, Upper	12C4	8000	19	8N	5W	1935	1,2,3,4,5	2
(MILK RIVER)								
Frenchy Creek	12A1	6000	13	26N	10W	1948	3,4	1
Walldron Creek	12B2	5400	16	25N	9W	1948	3,4	1
West Fork	12B1	6000	6	25N	9W	1948	3,4	1
(SUN RIVER)								
Benchmark	12B6	5500	9	20N	10W	1948	3,4	1
Cabin Creek	12B4	5400	33	23N	10W	1949	3,4	1
Five-Bull	12B9	5600	30	20N	10W	1948	3,4	1
Gates Park	12B5	5300	31	21N	10W	1949	3,4	1
Goat Mountain	12B7	7000	20	22N	10W	1934	3,4	2
Ivy Lake	13B9	7300	21	23N	12W	1950	3,4	1
Wrong Creek Ridge	12B3	6800	17	25N	10W	1949	3,4	1
Wrong Creek	12B4	5700	32	25N	10W	1949	3,4	1
(MARIAS RIVER)								
Marias Pass	13A5	5250	34	30N	14W	1936	1,2,3,4,5	2
Snow Lab. #16	13A9	5200	15	29N	14W	1947	1,2,3,4,5	2
(MILK RIVER)								
Rocky Boy	9A1	5200	15	28N	10E	1941	3,4	7
(MUSSELSHELL RIVER)								
Grasshopper	10C3	7000	19	9N	8E	1938	3,4	1
UPPER YELLOWSTONE								
Carr Sonia	9D1	7890	2	8S	18E	1937	4	1
Canyon	10E3	7750	44°-44'		110°-30'	1938	1,2,3,4,5	Pd.Obs.
Cooke City	10D7	7400	25	9S	14E	1937	1,2,3,4,5	5
Crevice Mt.	10D5	8400	29	9S	9E	1935	3,4	1
Independence	10D6	8000	22	7S	12E	1941	3,4	Pd.Obs.
Lake Camp	10E4	7850	44°-34'		110°-24'	1937	1,2,3,4,5	Pd.Obs.
Lewis Lake (Wyo.)	9E1	8200	32	56N	106W	1940	4,5	1
Lupine Creek	10E1	7300	44°-54'		110°-37'	1938	1,2,3,4,5	5
(SHIELDS RIVER)								
Porcupine	10C3	6500	10	4N	10E	1938	3,4	1
LOWER YELLOWSTONE (LAMAR RIVER) WYO.								
Brooks Lake #3	10F2	9200	23	44N	110W	1939	2,3,4,5	Pd.Obs.
Burroughs Creek	9F6	8800	15	43N	107W	1948	2,3,4,5	Pd.Obs.
Dinwoodie	9F10	10000	9	38N	105W	1948	2,3,4,5	Pd.Obs.
Dry Creek	9F9	9500	34	4N	105W	1948	2,3,4,5	Pd.Obs.
DuNoir	9F2	8750	27	42N	108W	1940	2,3,4,5	Pd.Obs.
Geyser Creek	9F3	8500	12	41N	108W	1948	2,3,4,5	Pd.Obs.
Hobbs Park	9G2	10000	22	2S	3W	1948	2,3,4,5	Pd.Obs.
Little Warm	9F4	9500	24	41N	108W	1948	2,3,4,5	Pd.Obs.
Mosquito Park R.S.	9G3	9500	23	2S	3W	1940	2,3,4,5	Pd.Obs.
Sheridan R. S.	9F1	7500	3	42N	109W	1939	2,3,4,5	1
St. Lawrence R.S.	9F11	9000	26	1N	4W	1940	2,3,4,5	Pd.Obe.
T-Bar-A Ranch	9F5	8000	1	43N	107W	1940	2,3,4,5	Pd.Obs.
Trout Creek	9G1	8400	5	2S	2W	1948	2,3,4,5	Pd.Obs.
Togwotee Pass	10F1	9600	29	44N	110W	1936	2,3,4,5	10
(BIG WIND RIVER) WYO.								
Blue Ridge	8G2	9500	23	31N	101W	1939	2,3,4,5	1
Cremmler Meadows	8G4	9000	19	30N	100W	1936	2,3,4,5	1
Larson Creek	9G4	9000	12	30N	103W	1948	3,4,5	1
Sawmill Glade	8G1	8500	3	31N	101W	1939	2,3,4,5	1
South Pass	8G3	9000	13	30N	101W	1939	2,3,4,5	1
Missouri River Drainage (Cont.)								
BIG HORN RIVER WYO.								
Beavers Hill	9F8	6900	6	43N	102W	1948	2,3,4,5	Pd.Obs.
Owl Creek	8F1	8700	30	43N	101W	1948	2,3,4,5	Pd.Obs.
Sensleep R.S.	7E3	8300	30	49N	86W	1935	4,5	1
Timber Creek	9E2	6800	25	47N	103W	1948	4,5	1
Ranger Creek	7E1	8500	32	53N	88W	1935	4,5	1
Wood River	9F7	8000	28	46N	103W	1939	2,3,4,5	1
(SHOSHONE RIVER) WYO.								
East Entrance	10E6	7000	17	52N	109W	1948	1,2,3,4,5	5
Sylvan Pass	10E5	7100	12	52N	110W	1936	1,2,3,4,5	5
TONGUE RIVER WYO.								
Big Goose	7E2	7700	4	53N	86W	1935	4,5	1
POWDER RIVER WYO.								
Red Fork	7E1	7000	18	43N	85W	1936	4,5	Pd.Obs.
Sour Dough	6E1	8500	17	49N	84W	1936	4,5	1
Columbia River Basin								
KOOTENAI RIVER								
Baree Mountain	15B1	6000	1	25N	31W	1937	4,5	1
Blue Bird Basin	1LA1	6800	24	37N	26W	1937	4,5	1
Brush Creek	1LA4	5000	13	30N	18W	1941	3,4	1
Red Mountain	15A1	6000	4	36N	29W	1937	3,4,5	1
FLATHEAD RIVER								
Big Creek	13B3	6750	6&7	22N	18W	1941	4,5	4
Brush Creek	1LA4	5000	13	30N	26W	1937	3,4	1
Cattle Queen	13A1	4700	7	35N	17W	1939	3,4	5
Desert Mountain	13A2	5600	24	31N	19W	1937	1,2,3,4,5	1
Elk Mountain	13B4	6750	1	20N	19W	1941	3,4	4
Goat Mountain	12B7	7000	20	22N	10W	1934	3,4	2
Hell Roaring Divide	1LA3	5770	35	32N	22W	1942	4,5	1
Kishenehn	1LA2	4300	7	37N	21W	1946	4,5	5
Limestone Pass	13B8	7000	34	17N	15W	1948	3,4	1
Logan Creek	1LA5	4300	34	30N	24W	1937	3,4	1
Marias Pass	13A5	5250	34	30N	14W	1934	1,2,3,4,5	2
North Fork Jocko	13B7	6330	3	17N	17W	1941	3,4	4
Rainy Lake	13B6	4300	11	18N	16W	1947	3,4,5	1
Snow Lab. # 16	13A9	5200	15	29N	14W	1946	1,2,3,4,5	2
Spotted Bear Mt.	13B2	7000	23	25N	15W	1948	3,4	1
Strawberry Lake	13B10	6500	11	28N	19W	1948	3,4	1
Trinkus Lake	13B1	6500	9	25N	17W	1948	3,4	1
Trout Lake	13B11	3600	21	28N	17W	1948	3,4	1
Upper Holland Lake	13B5	7000	28	20N	16W	1948	3,4	1
UPPER CLARK FORK								
Chessman Reservoir	12C5	6200	2	8N	5W	1936	1,2,3,4,5	2
East Fork Ranger Stn	13D1	5400	16	2N	17W	1937	4	1
El Dorado Mine	13C9	7800	23	8N	12W	1946	4	11
Gold Creek Lake	13C8	7200	14	8N	12W	1946	4	11
Intergaard	13C4	6450	6	5N	13W	1939	2,3,4	3
North Fork Jocko	13B7	6330	3	17N	17W	1941	3,4	4
Picnic Grounds	12C6	6500	22	5N	6W	1940	2,3,4	3
Pipestone Pass	12D1	7200	11	1N	7W	1938	2,3,4,5	1
Rainy Lake	13B6	4300	11	18N	16W	1947	3,4,5	1
Skalkaho Summit	13C3	7258	30	6N	17W	1937	4	1
Slide Rock Mountain	13C2	7100	26	10N	16W	1937	4	1
Southern Cross	13C5	6500	9	5N	13W	1939	2,3,4	3
Stemple Pass	13C1	6900	16	13N	7W	1934	3,4,5	2
Storm Lake No. 2	12C7	7780	19	4N	13W	1939	4	1
Stuart Mill	13C6	6500	19	5N	13W	1939	2,3,4	3
Stuart Mountain #1	13C1	7400	6	11N	18W	1936	4	1
Tenmile Creek, Lower	12C2	6250	13	8N	6W	1935	1,2,3,4,5	2
Tenmile Creek, Middle	12C3	6800	13	8N	6W	1935	1,2,3,4,5	2
Tenmile Creek, Upper	12C4	8000	19	8N	5W	1935	1,2,3,4,5	2
PEND OREILLE RIVER								
Baree Mountain	13B1	6000	1	25N	31W	1937	4,5	1
Freezeout Summit	15C3	7000	21	15N	27W	1937	4	1
Hoodoo Creek	13C1	6200	9&16	14N	27W	1937	4	1
BITTERROOT RIVER								
East Fork R. S.	13D1	5400	16	2N	17W	1937	4	1
Gibbons Pass	13D2	7100	4	2S	19W	1934	2,3,4,5	1
Mud Creek Pasture	14C1	4500	24	11N	24W	1937	3	1
Nezperce Camp	1LD2	5580	19&20	1S	23W	1937	4	1
Nezperce Pass	1LD1	6575	32	28N	16E	1937	4	1
Skalkaho Summit	13C3	7259	30	6N	17W	1937	4	1
Stuart Mountain #1	13C1	7400	6	11N	18W	1936	4	1
Saskatchewan River Basin								
ST. MARY RIVER								
Iceberg Lake	13A3	6000	48°-50'		113°-12'	1922	5	2,8
Piegan Pass # 4	13A4	5000	48°-46'		113°-10'	1922	5	2,8
Piegan Pass # 6	13A6	6500	48°-45'		113°-12'	1922	5	2,8
Mount Allen # 7	13A7	7000	48°-44'		113°-10'	1922	5	2,8
Ptarmigan # 8	13A8	5800	48°-50'		113°-12'	1922	5	2,8

a. Numerals 1,2,3,4, and 5 refer to January 1, February 1, March 1, April 1, and May 1.

b. Numerals refer to Agency that secures the snow survey as follows:

1. U. S. Forest Service
2. U. S. Geological Survey and U. S. Engineer Corps
3. Montana Power Company
4. U. S. Indian Service
5. National Park Service
6. Montana Experiment Station
7. City of Bozeman
8. Dominion Water and Power Bureau
9. U. S. Fish and Wildlife Service
10. U. S. Bureau of Reclamation
11. Deerlodge Citizens Committee

Pd. Obs. Paid Observer by Soil Conservation Service

IRRIGATION WATER SUPPLY OUTLOOK 1950

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MONTANA SNOW SURVEYS January 1, 1950

SNOW COURSE	DRAINAGE BASIN	Date of Survey	Snow Depth (In.)	Water Equiv. (In.)	Density Per Cent	COMPARATIVE DATA 1949 Snow Depth	1949 Water Equiv.	1948 Snow Depth	1948 Water Equiv.	1949 Per Cent Average
MISSOURI										
Canyon	Yellowstone	Jan. 2	31.2	5.8	19.0	37.8	7.7	25.1	5.4	79.0
Lake Camp	Yellowstone	Jan. 2	17.0	3.1	18.0	30.5	7.4	----	---	----
Lupine Creek	Yellowstone	Dec.31	14.2	4.0	28.2	30.9	6.4	20.4	3.6	87.0
Cook City	Yellowstone	Dec.31	11.8	2.3	19.7	24.5	6.2	18.6	3.6	49.0
New World	Gallatin	Jan. 8	11.6	2.0	18.0	26.0	6.0	----	---	----
Mystic Lake	Gallatin	Jan. 8	10.0	2.0	20.0	23.6	5.5	25.9	5.6	----
Twenty-One Mile	Gallatin	Jan. 3	28.3	7.4	26.1	46.0	12.7	55.3	14.4	103.0
West Yellowstone	Madison	Jan. 4	18.0	4.1	22.8	33.2	7.8	18.1	3.7	89.0
Hebgen	Madison	Jan. 4	20.9	4.8	22.9	36.4	8.5	----	---	92.5
Marias Pass	Marias	Jan. 3	39.9	10.3	25.8	35.7	9.9	24.5	4.8	154.0
Tenmile, Lower	Mo. Main Stem	Dec.29	10.2	1.7	16.7	21.0	4.2	27.8	6.0	53.2
Tenmile, Middle	Mo. Main Stem	Dec.30	18.2	3.3	18.1	27.5	6.2	31.0	7.5	71.8
Tenmile, Upper	Mo. Main Stem	Dec.30	20.8	4.1	19.7	30.4	7.7	35.6	9.4	70.8
Chessman Res.	Mo. Main Stem	Dec.31	8.8	1.7	19.3	14.1	3.1	17.8	5.0	85.0
COLUMBIA										
Lookout	Clark Fork	Jan. 3	70.0	16.3	23.0	82.0	24.2	----	---	----
Desert Mountain	Flathead	Dec.30	31.7	6.2	20.0	----	---	----	---	----
Big Creek	Flathead	Jan. 2	68.0	19.9	29.4	----	---	----	---	----
North Fork Jocko	Flathead	Jan.13	88.0	23.0	26.2	----	---	----	---	----
Snow Lab. #16	Flathead					44.2	13.4	32.4	7.4	----

U.S. DEPARTMENT OF COMMERCE, WEATHER BUREAU
STATE OF MONTANA, MONTHLY PRECIPITATION FOR
OCTOBER 1, 1950

STATIONS	1949 OCTOBER		1949 NOVEMBER		1949 DECEMBER		1950 JANUARY	
	Precip.	Dep.	Precip.	Dep.	Precip.	Dep.	Precip.	Dep.
WEST OF DIVIDE								
Butte	0.62	-0.17	0.53	0.13	0.34	-0.10	0.66	0.26
Deer Lodge	0.21	-0.47	0.27	-0.28	0.31	-0.20	0.67	0.08
Hamilton	1.20	0.29	2.03	1.22	0.71	0	2.23	1.44
Kalispell City	0.98	-0.08	1.42	0.07	0.97	-0.48	1.94	0.37
Missoula	0.74	-0.21	0.72	-0.18	0.65	-0.30	1.75	0.90
Trout Creek							8.71	5.02
Thompson Falls							4.71	2.70
CENTRAL DIVISION								
Babb	1.61	0.43	0.57	-0.42	1.64	0.70	--	--
Dillon	1.19	0.25	0.13	-0.67	0.18	-0.56	0.17	-0.56
Fort Benton	1.86	1.14	0.23	-0.36	1.28	0.77	--	--
Great Falls	0.90	0.04	0.05	-0.63	0.53	-0.12	0.91	0.30
Havre	1.41	0.74	0.03	-0.58	0.86	0.25	0.92	0.19
Helena WBO	0.28	0.33	0.15	-0.30	0.37	-0.10	1.05	0.41
Livingston	1.40	0.23	0.51	-0.29	0.53	-0.07	1.20	0.66
Lewistown Airport	1.82	1.46	0.18	-0.03	1.78	1.58	--	--
Mystic Lake	2.32	0.48	0.04	-1.54	1.41	0.37	--	--
EASTERN DIVISION								
Billings #2	2.21	0.90	0.02	-0.72	0.72	0.22	0.69	0.06
Circle	1.15	0.30	0.06	-0.51	0.39	-0.36	--	--
Frazer	0.90	0.02	0.05	-0.48	0.50	0.11	1.19	0.78
Malta	1.25	0.52	0	-0.41	0.62	0.16	0.90	0.43
Mildred	1.69	0.96	T	-0.37	0.51	0.19	0.19	-0.15
Medicine Lake	0.50	0.25	T	-0.33	0.35	0.07	0.87	0.56
Miles City	2.43	1.53	0.02	-0.55	0.20	-0.43	0.22	-0.44
Fort Peck	0.67	-0.08	T	-0.47	1.04	0.76	0.83	0.45
Summit (Marias Pass)							9.35	5.93
Yellowstone Park Wyoming					4.04	0.52	1.06	0.11

STORAGE IN RESERVOIRS OF MONTANA

AS OF JANUARY 31, 1950

RESERVOIR	Location or on Diversion from	Usable Capacity	Contents This Month End	Contents January 1949
MISSOURI RIVER BASIN				
Lake Sewall	Missouri	37,800	29,240	22,980
Hauser Lake	Missouri	52,090	35,180	29,230
Ft. Peck Res.	Missouri	19,000,000	11,280,000	12,700,000
Ruby Res.	Ruby	38,500	---	---
Harrison Lake	Willow Cr.	17,760	---	---
Hebgen Res.	Madison River	345,000	207,600	246,900
Madison Res.	Madison River	41,000	34,280	33,800
Smith River Res.	Smith River	10,700	---	---
Gibbons Res.	N. Fk. Sun River	105,000	34,060	66,240
Willow Creek	N. Fk. Sun-Willow Cr.	32,300	2,540	18,000
Pishkun Res.	N. Fk. Sun River	32,000	19,160	16,360
Lower Two Medicine L.	Two Medicine River	14,000	0	0
Four Horns Res.	Badger Creek	20,000	5,880	9,800
Birch Creek Res.	Birch Creek	30,000	16,670	26,370
Lake Francis Res.	Birch Creek	112,000	81,710	98,960
Ackley Lake	Judith River	5,820	---	---
Durand Res.	N. Fk. Musselshell	7,010	---	3,660
Dead Man Basin	Musselshell River	52,500	---	---
Martinsdale Res.	So. Fk. Musselshell	23,100	---	14,050
Fresno Res.	Milk River	127,200	---	70,290
Nelson Res.	Milk River	66,800	---	---
Mystic Lake	W. Rosebud Creek	20,800	10,920	12,300
Glacier Lake	Rock Creek	4,200	---	---
Cooney Res.	Red Lodge Creek	27,500	---	---
Tongue Res.	Tongue River	73,900	---	---
Sherburne Lake Res.	Swiftcurrent Creek	66,100	33,590	---
Lake Helena	Missouri River	10,450	3,050	1,460
YELLOWSTONE RIVER BASIN				
Buffalo Bill	Shoshone	456,600	221,125	205,900
Sunshine	Greybull	52,000	17,562	---
Pilot Butte	Wind River	30,000	10,212	---
Bull Lake	Wind River	155,000	15,262	---
COLUMBIA RIVER BASIN				
Georgetown Lake	Flint Creek	31,000	18,790	28,360
E. Fk. Rock Cr. Res.	E. Fk. Rock Creek	16,040	---	---
Nevada Creek Res.	Nevada Creek	12,600	---	---
W. Fk. Bitterroot Res.	E. Fk. Bitterroot	31,700	---	10,000
Como Lake	Rock Creek	34,800	---	---
Flathead Lake(Sommers)	Flathead River	1,791,000	958,100	797,000
Little Bitterroot	Little Bitterroot	37,100*	26,500*	36,090*
Dry Fork Res.	Dry Fork Creek	6,700*	3,430*	2,730*
Mission Valley Res.	Mission Valley(Flathead)	105,000**	24,075**	22,391**

* Comprise two reservoirs on Dry Creek.

* Comprise two reservoirs on Little Bitterroot River.

** Comprise nine small reservoirs on Mission Valley Project, Indian Reclamation Service.

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MISSOURI BASIN

DRAINAGE BASIN AND SNOW COURSE **	No.	Elev.	Date of Survey 1950	Snow Depth (In.) 1950	SNOW MEASUREMENTS Water Content (Inches) Feb. 1 1950	Past Records 1949	Past Records 1948	Average Data February 1 Avg.	Average Data February 1 %Avg.	Average Data April 1 Avg.	Average Data April 1 %Avg.	Years of Record
JEFFERSON RIVER (Rock-Beaverhead)												
Lakeview Ridge	11B3	7400	2/1	33.6	8.6	----	----	----	----	10.0	86	2
Lakeview Canyon	11E4	6930	2/1	44.6	12.0	----	----	----	----	12.0	100	2
Kilgore	11E12	6200	1/28	38.0	9.0	6.9	4.8	6.9	130	10.0	90	13
(BIG HOLE)												
Gibbons Pass	13D2	7100	1/29	67.0	17.0	----	13.7	13.8	123	20.8	82	10
MADISON RIVER												
Hebgen	11E5	6550	2/1	28.8	7.7	11.1	9.5	7.5	102	11.6	67	10
West Yellowstone	11E7	6700	2/1	35.4	10.0	9.7	5.1	6.5	154	10.6	94	10
GALLATIN RIVER												
Mystic Lake	10D2	6600	1/29	14.5	2.5	6.6	11.6	4.9	52	6.6	38	14
New World	10D1	6700	1/29	19.2	3.2	12.2	8.3	10.2	31	9.6	34	2-10
21-Mile	11E6	7150	2/1	49.2	14.5	14.2	8.8	9.8	148	15.4	94	10
MISSOURI RIVER MAIN STEM												
Chessman Res.	12C5	6200	2/3	14.0	3.4	6.6	4.4	2.6	131	4.1	83	10
Picnic Grounds	12C6	6500	2/1	14.0	2.1	3.9	----	----	----	----	----	--
Tenmile, Lower	12C2	6250	2/1	21.1	4.6	6.3	7.2	3.9	118	5.6	82	10-14
Tenmile, Middle	12C3	6800	2/2	30.7	6.9	8.7	10.5	5.3	130	9.1	76	10-14
Tenmile, Upper	12C4	8000	2/2	34.2	8.4	10.6	13.8	7.6	113	11.9	72	14
(MARIAS RIVER)												
Marias Pass	13A5	5250	2/2	65.6	20.6	12.6	8.2	10.5	197	16.2	127	14
Snow Lab. #16	13A9	5200	2/2	67.9	21.2	13.4	9.8	13.8	154	22.1	96	3

* Adjacent Basin

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MISSOURI BASIN

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YELLOWSTONE RIVER TRIBUTARIES IN WYOMING												
UPPER YELLOWSTONE												
Canyon	10E3	7750	2/1	46.2	11.6	10.2	7.9	9.0	129	15.3	76	4
Cook City	10D7	7400	2/2	22.0	4.3	6.1	5.9	5.8	74	7.4	58	3-13
Lake Camp	10E4	7850	2/1	35.2	8.1	8.4	----	5.1	159	8.9	91	5-14
Lupine	10E1	7300	2/2	30.1	7.5	8.6	5.2	6.6	114	7.8	96	12
Lewis Lake Divide	10E9	7900	1/17	84.0	21.6	25.3	19.1	30.5	71	42.0	51	20
Aster Creek	10E8	7700	1/17	75.0	16.9	19.2	12.0	21.7	78	29.1	57	20
LOWER YELLOWSTONE (Wind River)												
Brooks Lake #3	10F2	9200	2/2	73.3	21.9	17.3	----	13.1	167	19.7	111	14
Burroughs Creek	9F6	8800	1/31	60.4	15.3	9.8	----	----	----	----	----	2
Dinwoodie	9F10	10000	2/4	48.7	13.4	9.1	----	----	----	----	----	2
Dry Creek	9F9	9500	2/4	34.1	8.2	5.1	----	----	----	----	----	2
Du Noir	9F2	8750	2/3	39.9	10.5	6.2	----	5.7	184	9.3	113	8
Geyser Creek	9F3	8500	2/1	34.5	8.0	6.3	----	----	----	----	----	2
Hobbs Park	9G2	10000	1/29	71.3	21.3	12.8	----	----	----	----	----	2
Little Warm	9F4	9500	2/1	59.5	16.7	----	----	----	----	----	----	1
Mosquito Park	9G3	9500	1/29	44.6	11.7	6.8	----	5.9	198	9.9	118	5
Sheridan	9F1	7500	1/31	26.9	6.2	6.3	----	4.8	129	6.2	100	8
St. Lawrence	9F11	9000	1/30	31.5	8.1	5.7	----	5.2	156	7.4	110	5
Trout Creek	9G1	8400	1/29	22.2	5.1	5.8	----	----	----	----	----	2
Togwotee Pass	10F1	9600	2/2	88.0	26.4	20.9	17.1	18.0	146	26.8	99	13
Black Rock	10F3	8600	2/2	67.0	18.4	15.7	14.3	11.4	161	21.0	88	13
(POPO AGIE RIVER)												
Blue Ridge	8G2	9500	1/27	47.7	13.8	10.0	----	----	----	----	----	2
Grannier Meadows	8G4	9000	1/27	39.2	16.2	11.1	----	8.2	198	11.9	136	13
Sawmill Glade	8G1	8500	1/27	16.5	4.9	5.9	----	----	----	----	----	2
South Pass	8G3	9000	1/27	56.2	14.8	11.7	----	----	----	----	----	2

* Adjacent Basin

MONTANA SNOW SURVEYS February 1, 1950

MISSOURI BASIN

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BIG HORN RIVER												
Beavers Mill	9F8	8900	1/30	32.7	6.5	5.5	----	----	----	----	----	2
Owl Creek	8F1	8700	1/31	21.2	4.8	4.2	----	----	----	----	----	2
(SHOSHONE RIVER)												
East Entrance	10E6	7000	2/5	28.6	8.6	10.7	----	----	----	----	----	2
Sylvan Pass	10E5	7100	2/5	40.1	12.8	11.0	----	7.4	173	11.8	108	8
UPPER COLUMBIA RIVER IN MONTANA												
FLATHEAD RIVER												
Big Creek	13B3	6750	1/30	94.0	30.0	----	----	----	----	----	----	1
Desert Mountain	13A2	5600	2/2	48.7	13.7	----	----	----	----	----	----	1
Marias Pass	13A5	5250	2/2	65.6	20.6	12.6	8.2	10.5	197	16.2	127	14
North Fork Jocko	13B7	6330	2/2	94.0	30.9	----	----	----	----	----	----	1
Snow Lab. #16	13A9	5200	2/2	67.9	21.2	13.4	9.8	13.8	154	22.1	96	3
UPPER CLARK FORK												
Intergaard	13C4	6450	2/1	24.0	4.7	5.6	6.3	4.6	104	8.0	60	5
Picnic Grounds	12C6	6500	2/1	14.0	2.1	3.9	----	----	----	----	----	2
Rainy Lake	13B6	4300	2/2	38.5	11.4	9.4	7.0	8.6	133	11.8	97	4
Southern Cross	13C5	6500	2/1	13.0	2.5	4.3	4.8	3.4	74	4.5	56	5
Stuart Mill	13C6	6500	2/1	19.0	3.4	4.5	5.9	4.2	81	5.8	59	5
BITTERROOT												
Gibbons Pass	13D2	7100	1/29	67.0	17.0	----	13.7	13.8	123	20.8	82	10
Nezperce Camp	14D2	5580	2/2	33.5	8.6	13.8	8.7	8.1	107	11.8	73	13
Nezperce Pass	14D1	6575	2/2	38.1	9.6	16.3	13.5	10.5	92	15.4	63	13
* Powell Pasture **	14C3	3700	1/29	42.0	12.0	----	----	9.0	133	11.5	104	12
* Packers Meadow **	14C2	5700	1/30	81.0	24.0	19.5	11.2	11.8	202	18.8	127	13

* Adjacent Basin
** Point Samples

MONTANA SNOW SURVEYS February 1, 1950

MISSOURI BASIN

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KOOTENAI RIVER IN CANADA												
Fernie	Canada	3500	1/31	44.8	11.7	6.8	4.9	5.2	225	6.7	175	8
Gray Creek	Canada	5100	1/30	47.2	12.5	12.1	----	----	----	----	----	2
Marble Canyon	Canada	5000	1/31	51.4	12.9	7.9	8.7	9.8	138	4.1	----	3
Nelson Creek	Canada	3050	1/30	36.1	9.9	14.6	9.0	12.9	77	11.7	84	10
Sinclair Pass	Canada	4500	1/28	28.9	5.2	3.2	5.3	4.9	106	4.6	103	3
Sullivan Mine	Canada	5100	2/1	45.3	11.4	9.0	7.3	9.9	115	13.9	82	3
Upper Elk River	Canada		1/31	35.0	8.1	4.7	5.0	5.6	145	----	----	3
Kimberley	Canada	3750	1/28	31.5	7.2	----	4.8	7.2	100	4.1	176	3

* Adjacent Basin

Federal - State - Private

COOPERATIVE SNOW SURVEYS

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Furnishes the basic data necessary for forecasting water supply for irrigation, domestic and municipal water supply, hydro-electric power generation, navigation, mining and industry

"WATER IS THE WEST'S GREATEST RESOURCE"